

AMENDMENTS TO THE CLAIMS

1.(currently amended): A receiver which demodulates an Orthogonal Frequency Division Multiplexing symbol transmitted by an Orthogonal Frequency Division ~~transmitter~~ Multiplexing ~~method~~, comprising:

- a delay profile generation unit which generates a delay profile regarding a preceding wave and a delayed wave which are included in a received signal;
- a demodulation unit which demodulates said received signal so as to output a demodulated signal per sub-carrier;
- a hard-decision unit which makes a hard decision per sub-carrier on a signal point based on said demodulated signal so as to output a hard-decision signal;
- a replica generation unit which uses the hard-decision signal to generate a replica signal per sub-carrier; and
- an inter-carrier interference suppression unit which adds a difference between said hard-decision signal and said replica signal to said demodulated signal so as to suppress an inter-carrier interference;

wherein said replica generation unit comprises:

- a time-domain received signal generation unit which inverse-Fourier transforms said hard-decision signal so as to generate a received signal in time domain;
- a signal component suppression unit which suppresses, by using a preceding symbol that is an already-demodulated OFDM symbol which precedes a target demodulating symbol that is a target OFDM symbol to be demodulated, a signal component of said preceding symbol which is included in said delayed wave;
- a modified received signal generation unit which adds, before said target

5.(original): The receiver as claimed in claim 1, further comprising a modified received signal generation unit which further adds a portion of a known signal which is received per predetermined number of OFDM symbols before the demodulated symbol of said delayed wave so as to generate the modified received signal.

6.(original): The receiver as claimed in claim 1, wherein said received signal is modified so as to make signal contents of a portion preceding the target demodulating symbol, which is included in the delayed wave, equal to said portion of the received signal in the time domain.

7.(currently amended): A receiver which demodulates an Orthogonal Frequency Division Multiplexing symbol transmitted by an Orthogonal Frequency Division ~~transmitter~~ Multiplexing method, comprising

a delay profile generation unit which generates a delay profile regarding a preceding wave and a delayed wave which are included in a received signal;

a signal component suppression unit which suppresses, by using a preceding symbol that is an already-demodulated OFDM symbol which precedes a target demodulating symbol that is a target OFDM symbol to be demodulated, a signal component of said preceding symbol which is included in said delayed wave;

a demodulation unit which demodulates said received signal so as to output a demodulated signal per sub-carrier;

a hard-decision unit which makes a hard decision per sub-carrier on a signal point based on said demodulated signal so as to output a hard-decision signal;